

REMARKS

Claims 12-30 are withdrawn from consideration. Claims 1, 4, and 10 are amended. No new subject matter is added. Reconsideration and allowance of claims 1-11 is requested in light of the following remarks.

Allowable Subject Matter

Claims 7, 8, and 11 are indicated to be otherwise allowable but for their dependence on a rejected base claim. Although the indication of allowable subject matter is appreciated, at this time the applicants wish to maintain claims 7, 8, and 11 in original form so that the arguments presented below with respect to claim 5 may be fully considered.

Objections

Claims 4 and 10 are objected to because the phrases BST, PZT, and ST are not in fully written form. The phrases BST, PZT, and ST, as is well-known in this art, are shorthand for the chemical compositions BaSrTiO₃, PbZrTiO₃, and SrTiO₃, respectively. Thus, claims 4 and 10 are amended to recite BaSrTiO₃, PbZrTiO₃, and SrTiO₃ instead of BST, PZT, and ST, respectively.

Claim Rejections – 35 U.S.C. § 112

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, “the upper interconnection” recited in claim 1, line 9, lacks antecedent basis.

Thus, claim 1 is amended to recite that a second upper interconnection is coupled to “the first upper interconnection”, where “a first upper interconnection” appeared in the original claim. Consequently, this rejection is traversed.

Claim Rejections – 35 U.S.C. § 102

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,472,754 to Nakajima et al (“Nakajima”). The applicants disagree.

Claim 1 is amended to recite that the lower electrode has a flat shape, that the lower interconnection is disposed below the lower electrode, and that a bottom part of the upper electrode is larger than the lower electrode. These features are fully supported by the original application at, e.g., FIG. 4 and page 7, line 33 to page 8, line 3.

Contrary to the above features of claim 1, Nakajima's lower electrode 24 does not have a flat shape (FIG. 8). Also contrary to the above features of claim 1, a bottom part of Nakajima's upper electrode 26 is not larger than Nakajima's lower electrode 24 (FIG. 8).

For this reason, Nakajima fails to anticipate claim 1 because it does not show the identical invention in as complete detail as contained in the claim. MPEP 2131, *citing Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Claims 2-4 depend from claim 1, and inherently contain the features of claim 1. Consequently, Nakajima fails to anticipate claims 2-4 for the same reason it fails to anticipate claim 1. MPEP 2131.

Claims 5, 6, 9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2004/0084709 to Kim et al. ("Kim"). The applicants disagree.

Kim's U.S. filing date, for the purposes of 35 U.S.C. 102(e), is 29 July 2003. MPEP 2136.03(I). The Korean priority date for this application is 5 February 2003. Because the U.S. filing date of Kim is later than the earliest effective filing date of the application, the 102(e) rejection is improper. MPEP 2136.03.

An English language translation of the certified copy of the foreign priority document is attached in the Appendix that follows page 12 of this paper. The translation of the certified copy is accurate. 37 CFR § 1.55(a)(4).

Furthermore, the standard for determining whether a claim is anticipated is whether a single reference shows the *identical* invention in as complete detail as is contained in the claim. MPEP 2131, *citing Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989), *emphasis added*.

Claim 5 recites, *inter alia*, a first interlayer dielectric and a second interlayer dielectric formed on the second interlayer dielectric. It is alleged that that Kim discloses, in FIG. 9, a first interlayer dielectric (lower portion of layer 120) and a second interlayer dielectric (upper portion of layer 120).

Contrary to claim 1, Kim FIG. 9 illustrates that the layer 120 is a single layer. Claim 1 requires that there be two distinct and separate interlayer dielectric layers. Kim specifically states that layer 120 is a "first interlayer dielectric" (para. 120). Kim FIG. 9 shows that the first interlayer dielectric 120 is a distinct and separate interlayer dielectric layer. The arbitrary division of the layer 120 into an "upper portion" and "lower portion" to meet the recited features of claim 1 is a clear violation of the "identical" standard required for anticipation rejections.

Consequently, Kim fails to anticipate claim 5 because it does not show a second interlayer dielectric as recited in the claim. MPEP 2131.

Claim 5 also recites, *inter alia*, a first metal interconnection *formed on* a predetermined surface of a semiconductor substrate, a first interlayer dielectric *formed on* the first metal interconnection and the semiconductor substrate, a second interlayer dielectric *formed on* the first interlayer dielectric, and a lower electrode *formed on* the first interlayer dielectric and coupled to one side of the first metal interconnection (emphasis added).

It is alleged that Kim discloses, in FIG. 9, a first metal interconnection 124, a first interlayer dielectric (lower portion of layer 120), a second interlayer dielectric (upper portion of layer 120), and a lower electrode 130.

The terms “formed on” are expressly recited in claim 5. Pending claims are given the broadest reasonable interpretation consistent with the specification. MPEP 2111. Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. MPEP 2111.01, *citing* Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1372 (Fed. Cir. 2004).

Even if the term “formed on” is interpreted as broadly as possible, Kim FIG. 9 shows that, contrary to claim 1, the alleged first interlayer dielectric (lower portion of layer 120) is not “formed on” the alleged first metal interconnection 124.

Consequently, Kim also fails to anticipate claim 5 because it does not show a first interlayer dielectric formed on the first metal interconnection. MPEP 2131.


Claims 6, 9, and 10 depend from claim 5, and inherently contain the features of claim 5. Consequently, Kim fails to anticipate claims 6, 9, and 10 for the same reasons it fails to anticipate claim 5. MPEP 2131.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-11 is requested. Please telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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